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Attorneys for Petitioner
SUNOCO, INC.

STATE WATER RESOURCES CONTROL BOARD

STATE OF CALIFORNIA

In the Matter of SUNOCO, INC., Petitioner, For Review and Rescission and Stay of Cleanup and Abatement Order No. R5-2013-0701, Mount Diablo Mine, Contra Costa County, dated April 16, 2013	PETITION NO. **DECLARATION OF ROBERT M. GAILEY IN SUPPORT OF SUNOCO, INC.'S PETITION FOR REVIEW AND RESCISSION AND STAY OF CLEANUP AND ABATEMENT ORDER NO. R5-2013-0701**

I, the undersigned Robert M. Gailey, declare as follows:

1) I am a Professional Geologist and Certified Hydrogeologist licensed with the State of California. I am also a Principal Hydrogeologist with The Source Group, Inc. ("SGI"), an environmental consulting firm. I have 28 years of experience as a practicing hydrogeologist involved in both technical and management aspects of environmental and water supply projects. Among other tasks performed during my career, I have conducted site investigations ranging from preliminary site assessments to remedial investigations, predicted exposure point concentrations, designed and implemented remedial actions, assessed the effectiveness of ongoing remediation programs, and performed comparative data

analyses to meet various project needs. This work has included execution of field data collection and detailed technical analysis for the purpose of evaluating water flow and contaminant transport at environmentally-impacted sites. Attached as **Exhibit A** is a true and correct copy of my current curriculum vitae.

2) SGI has been retained by Sunoco, Inc. ("Sunoco") to provide technical consulting services related to both historical mining operations and current conditions at the Mount Diablo Mercury Mine Site ("Site"). Part of this work has involved evaluating the impact of historical operations conducted by the Cordero Mining Company ("Cordero") on environmental conditions at the Site. I am familiar with the facts set forth herein from both my visit to the Site and my review of historical and technical documents related to the Site.

3) This declaration is in support of Sunoco's Petition for Review and Rescission, and Stay, of the Cleanup and Abatement Order ("CAO") R5-2013-0701 issued by the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") on April 16, 2013.

4) Opinions expressed in this declaration rely, in part, on the SGI report titled Additional Characterization Report, Mount Diablo Mercury Mine and dated December 7, 2011 ("Characterization Report"). Attached as **Exhibit B** is a true and correct copy of the Characterization Report.

5) Opinions expressed in this declaration rely, in part, on the SGI report titled Divisibility Position Paper, Mount Diablo Mercury Mine and dated July 31, 2009 ("Divisibility Report"). Attached as **Exhibit C** is a true and correct copy of the Divisibility Report.

6) Opinions expressed in this declaration rely, in part, on the Declaration of Paul D. Horton in Support of Sunoco, Inc.'s Petition for Review and Rescission of Revised Technical Reporting Order No. R5-2009-0869 and Sunoco, Inc.'s Petition for Stay of Revised Technical Reporting Order No. R5-2009-0869,

including exhibits, dated January 28, 2010 ("Horton Declaration"). Attached as **Exhibit D** is a true and correct copy of the Horton Declaration.

7) Based upon my review of documents related to the Site, including but not limited to the Characterization Report, the Divisibility Report, and the Horton Declaration, and my visit to the Site, it is my opinion that Cordero operations had limited, if any, environmental impact to the Site.

8) Cordero leased the Site from Mt. Diablo Quicksilver Company Ltd. for the purpose of performing mining operations on November 1, 1954 (Exhibit C – Appendix A). Cordero then a) performed exploratory mining operations from January, 1955 through December, 1955 and transferred the lease to Nevada Scheelite, Inc. in March, 1956 (Exhibit C – Section 2). During the period that Cordero conducted operations, an estimated 1,228 cubic yards of waste rock, and approximately 50 to 100 cubic yards of low-grade ore, were generated. The total amount of material generated is estimated to be less than 1.2 percent of the total volume of material (waste rock and ore) removed from the mine by all operators (Exhibit C – Section 5.1). The waste rock generated by Cordero appears to have been discarded in the Northern Waste Dump Area (Exhibit B – Figure 2-2 and Horton Declaration). Water pumped from the mine appears to have been piped to a disposal location approximately 1,350 feet west of Cordero's point of access to the underground mine workings - the DMEA Shaft – and generally evaporated and/or drained into the My Creek drainage (Exhibit B – Figure 3-2, Exhibit C – Section 5.2).

9) The Characterization Report establishes relationships between different water sources, overland flow patterns at the Site, and resulting environmental impacts. There are three sources of water at the Site (Exhibit B - Section 4.4):

a. Water sourced from underground mine workings (groundwater

that reaches the ground surface near the abandoned and buried 165-level Adit and then contacts mine tailings and waste rock as overland flow that ultimately enters the Lower Pond adjacent to Dunn Creek);

b. Water sourced from precipitation that contacts mine tailings and waste rock (rainwater that falls onto the Site, then contacts mine tailings and waste rock as overland flow, and ultimately enters a pond or one of the creeks adjacent to the Site); and

c. Water flows not in contact with mine tailings or waste rock (rainwater that falls onto, as well as groundwater that reaches the ground surface through springs at, certain Site locations that do not involve contact with mine tailings or waste rock).

10) The first source of water, water sourced from underground mine workings, is groundwater that reaches the ground surface near the abandoned and buried 165-level Adit and then contacts mine tailings and waste rock as overland flow that ultimately enters the Lower Pond adjacent to Dunn Creek (Exhibit B, Section 4.4 and Figure 3-2). Before exiting the 165-level Adit, this water a) contains concentrations of constituents that include total mercury, methyl mercury, arsenic, and several cations and anions and b) is slightly acidic (results for monitoring well ADIT-1, Exhibit B - Section 4.4.1 plus subsections, Figure 4-3 and Table 3-4). After contact with the mine tailings and waste rock, the water a) contains higher concentrations of constituents that include mercury (total and dissolved) and methyl mercury, b) contains lower concentrations of constituents that include arsenic and some cations and anions and c) is more acidic (results for sampling location SW-15, Exhibit B - Section 4.4.1 plus subsections, Figure 4-3 and Table 3-2). These results indicate that contact of mine water with the tailings and waste rock located in the southeastern portion of the Site increases the acidic condition and mercury content in overland flows that ultimately reach the Lower

Pond adjacent to Dunn Creek. The results also indicate that contact of the mine water with the mine tailings and waste rock reduces concentrations of arsenic and some cations and anions. Therefore, water sourced from the 165-level Adit, in combination with the mine tailings and waste rock that it contacts, create an environmental impact related to mercury.

11) The groundwater sampling results indicate geochemical dissimilarities between groundwater at the 165-level (the Bradley workings) and 360-level (the Cordero workings) within the underground workings (results for monitoring wells ADIT-1 and DMEA-1, Exhibit B – Section 4.4.1 plus subsections, Figure 4-3 and Table 3-4). One difference is that water deeper in the underground workings (the 360-level) contains no mercury (Id.) Another difference is the inorganic geochemical signature of the 165-level and 360-level waters observed during the July, 2011 sampling (Exhibit B – Table 3-4 and Appendix G). These observations indicate that groundwater from the 360-level underground workings does not contribute mercury to flows at ground surface. The observations also indicate that the 360-level underground workings contribute little, if any, flow to the overland flow that is sourced from underground mine workings at the Site. If the deeper workings did contribute significant flow, the geochemical signature of the deeper groundwater observed in July, 2011 would be evident, which it is not.

12) As set forth in the Divisibility Paper and the Horton Declaration, the 165-level Adit and associated underground workings, as well as the above-referenced mine tailings and waste rock, were not constructed during Cordero's operations. In addition, the groundwater at the 360-level (the Cordero workings) contains no mercury and has little, if any, impact on the flow exiting the 165-level Adit. Therefore, environmental impacts associated with the first listed source of water (water sourced from the 165-level Adit) are not a result of Cordero operations.

13) The second source of water, water sourced from precipitation that contacts mine tailings and waste rock, is rainwater that falls onto the Site, then contacts mine tailings and waste rock as overland flow, and ultimately enters a pond or one of the creeks adjacent to the Site (Exhibit B, Section 4.4 and Figure 3-2). This source of water involves two distinct geographic portions of the Site, central/southern and northern, located on opposite sides of an east-west oriented ridge that acts as a surface water flow divide.

14) Data collected for the central and southern portions of the Site indicate that, after contact with the mine tailings and waste rock, the overland flow from rainwater a) contains elevated concentrations of constituents that include mercury (total and dissolved), arsenic, and some cations and anions and b) is acidic (results for sampling locations SW-01, SW-02, SW-03 and SW-06; Exhibit B - Section 4.4.2 plus subsections, Figure 4-3 and Table 3-2). The environmental impacts are more pronounced for the southeastern portion of the Site than in the central portion of the Site.

15) As set forth in the Divisibility Paper and the Horton Declaration, the mine tailings and waste rock in this portion of the Site did not result from Cordero operations. Therefore, environmental impacts associated with this portion of the second source of water (water sourced from precipitation that contacts mine tailings and waste rock) are not a result of Cordero operations.

16) Data collected for the northern portion of the Site, where I understand that no mine tailings are present, indicate that, after contact with waste rock, the overland flow from rainwater a) contains no mercury (total or dissolved) or arsenic and significantly lower concentrations of some cations and anions, b) is not acidic and c) has a different geochemical signature than the water collected in the central and southern portions of the Site (results for sampling locations SW-11 and SW-13; Exhibit B - Section 4.4.2 plus subsections, Figure 4-3, Table 3-2 and Appendix

G). Therefore, there are no apparent environmental impacts associated with the northern portion of the Site.

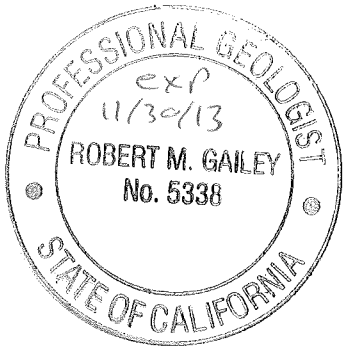
17) As set forth in the Divisibility Paper and the Horton Declaration, some of the waste rock in the northern portion of the Site may have been associated with Cordero operations. Therefore, there are no apparent environmental impacts associated with the portion of the second source of water (water sourced from precipitation that contacts mine tailings and waste rock) that did result from Cordero operations.

18) The third and final source of water, water flows not in contact with mine tailings or waste rock, are derived from rainwater that falls onto, as well as groundwater that reaches the ground surface through springs at, certain Site locations that do not involve contact with mine tailings or waste rock (Exhibit B - Section 4.4 and Figure 3-2). Data collected for these portions of the Site indicate that the overland flow from rainwater a) contains little to no mercury (total and dissolved), methyl mercury or arsenic and generally lower concentrations of some cations and anions and b) is not acidic – with the exception of SW-14 (results for sampling locations SW-04, SW-08, SW-12, SW-14 and SW-16; Exhibit B - Section 4.4.3 plus subsections, Figure 4-3 and Table 3-2). Based upon Site research and reconnaissance discussed in Exhibit B to this declaration, and also the above-referenced Horton declaration, these observations of environmental conditions at the Site are considered reflective of background conditions in the vicinity of the mineable deposits.

19) For all of the reasons presented above, it is clear that the Cordero operations contributed little, if any, to environmental impacts observed at the site, which are instead the result of mine water from the 165-level Adit and rainwater that landed on and flowed through, and continues to land on and flow through, the tailings and waste rock left on the surface of the southeastern portion of the Site by

owners and operators other than Cordero.

I declare under penalty of perjury under the laws of the State of California and the United States of America that the foregoing is true and correct. Executed this 15th day of May, 2013 in Berkeley, California.



By: Robert M. Gailey